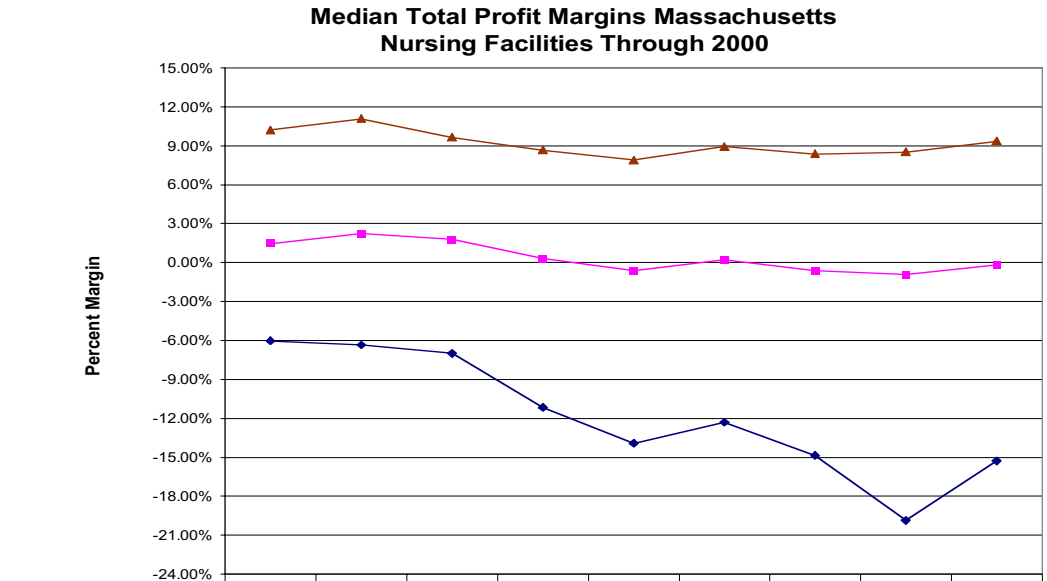
Note: Throughout this analysis we have reported medians, rather than means, as a better measure of an "average" facility because the data is very skewed. That is, there are a small number of facilities with very high costs and revenues that would inflate a mean, but not a median. Data for 2000 is incomplete, and includes only those facilities whose cost reports had been processed by the Division of Health Care Finance and Policy as of June 1. The sample is estimated to include 85-90% of all nursing facilities in the state.

Figure 1:

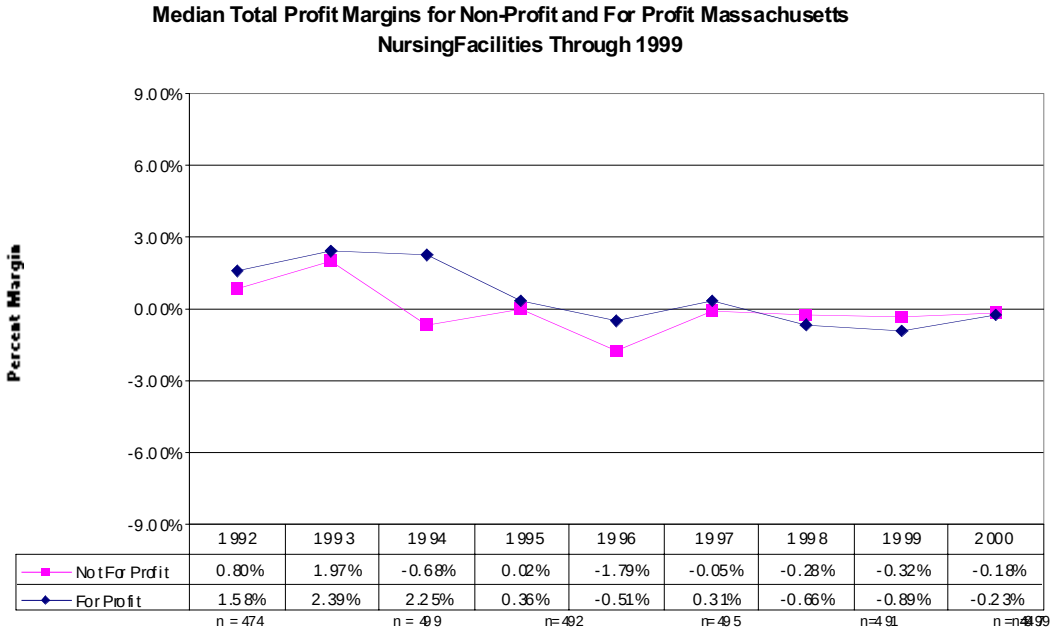


	1992	1993	1994	1995	1996	1997	1998	1999	2000
Median for Highest 25%	10.21%	11.07%	9.64%	8.65%	7.89%	8.94%	8.37%	8.50%	9.35%
Median for All	1.46%	2.22%	1.77%	0.30%	-0.65%	0.21%	-0.63%	-0.94%	-0.17%
Median for Lowest 25%	-6.03%	-6.34%	-6.99%	-11.17%	-13.93%	-12.31%	-14.87%	-19.86%	-15.29%
	n = 474	n = 499	n=492	n=495	n=491	n=479	n=474	n = 470	n = 417

Source: DHCFP

Margins for the top 75% of nursing facilities have remained relatively stable for several years, increasing slightly in 2000. The median margin in 2000 was slightly below break-even. The top 25% of facilities had strong positive margins from 1992-2000. The lowest 25% of facilities had increasingly negative margins from 1994 through 1999, improving somewhat in 2000. The steep decline in margins of the lowest quartile in 1999 is due almost entirely to extremely low margins at facilities owned by one bankrupt chain (Sunbridge); if those facilities are removed, there is little change in median margin for the lowest quartile from 1998 through 2000.

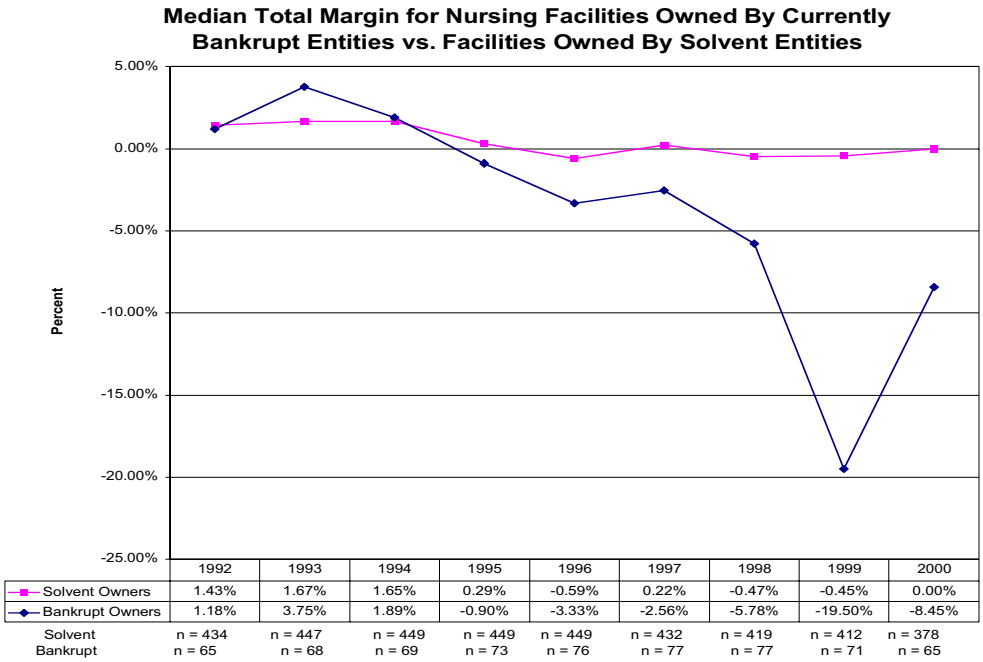
Figure 2:



Source: DHCFP

For-profit facilities had higher median margins than not-for-profits from 1992 through 1997. From 1998 through 2000 for-profit facilities median margins dipped below the median margins for not-for-profits, and median margins for both groups were negative.

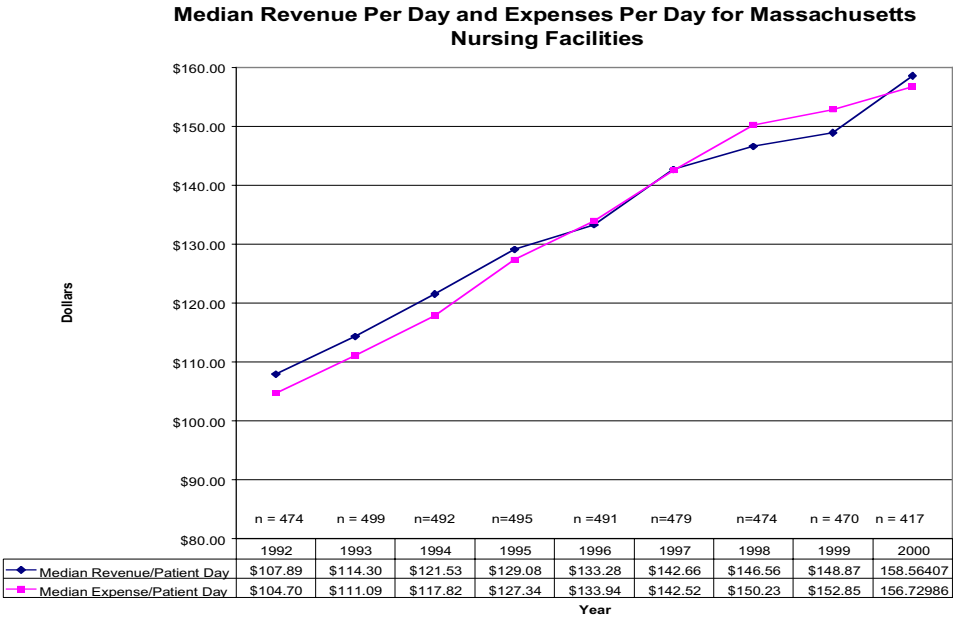
Figure 3:
Source: DHCFP



	1992	1993	1994	1995	1996	1997	1998	1999	2000
Solvent Owners	1.43%	1.67%	1.65%	0.29%	-0.59%	0.22%	-0.47%	-0.45%	0.00%
Bankrupt Owners	1.18%	3.75%	1.89%	-0.90%	-3.33%	-2.56%	-5.78%	-19.50%	-8.45%
Solvent	n = 434	n = 447	n = 449	n = 449	n = 449	n = 432	n = 419	n = 412	n = 378
Bankrupt	n = 65	n = 68	n = 69	n = 73	n = 76	n = 77	n = 77	n = 71	n = 65

Facilities owned by parent corporations that were in bankruptcy on June 20, 2001 had lower median margins from 1995 through 2000 than facilities with currently solvent owners. The steep decline in 1999 was primarily the result of extremely low margins that year at facilities owned by Sunbridge.

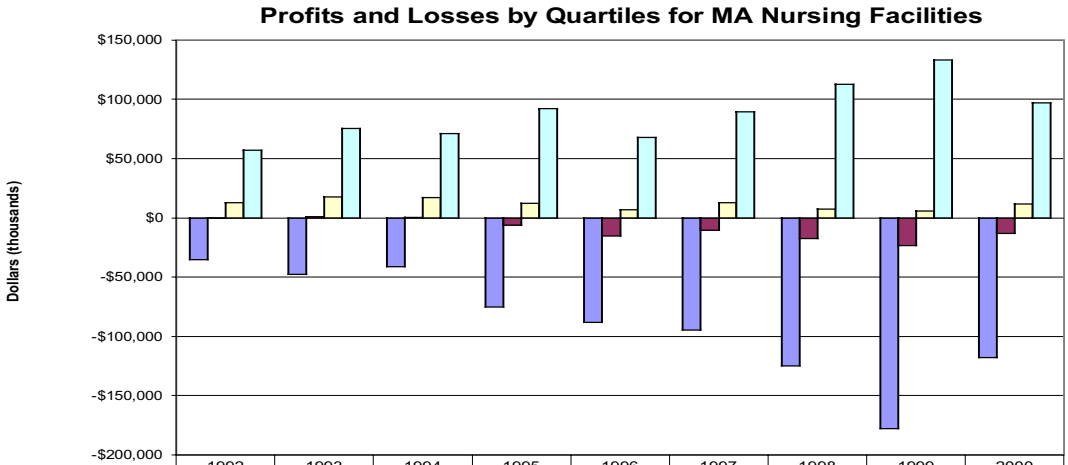
Figure 4:



	1992	1993	1994	1995	1996	1997	1998	1999	2000
Median Revenue/Patient Day	$107.89	$114.30	$121.53	$129.08	$133.28	$142.66	$146.56	$148.87	158.56407
Median Expense/Patient Day	$104.70	$111.09	$117.82	$127.34	$133.94	$142.52	$150.23	$152.85	156.72986

Source: DHCFP
Median revenue per day exceeded median expense per day in 2000, for the first time since 1997.

Figure 5:



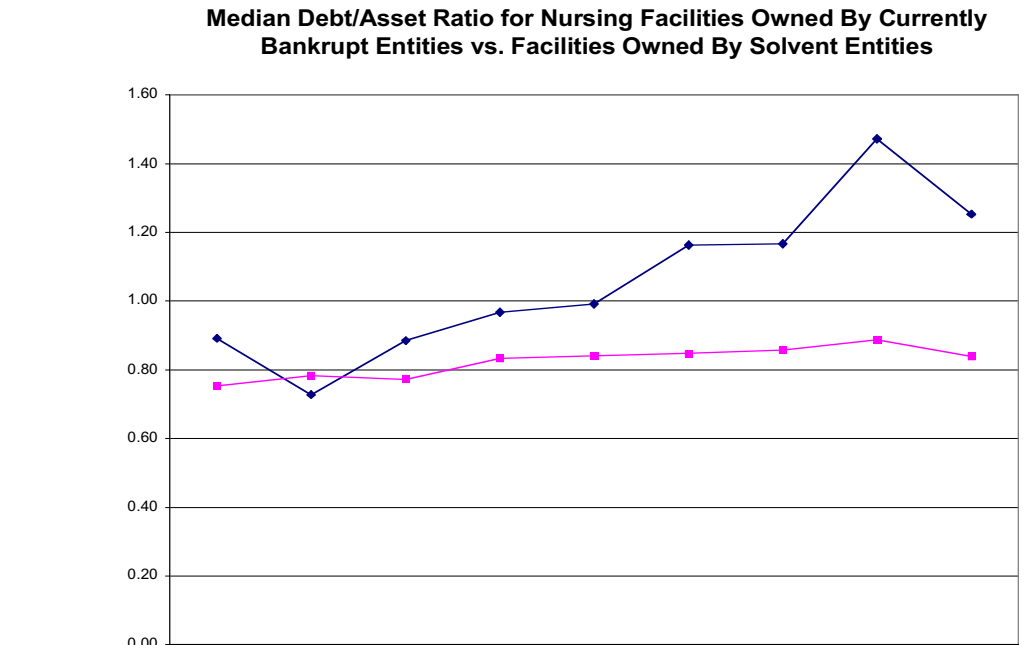
	1992	1993	1994	1995	1996	1997	1998	1999	2000
Lowest Quartile	-$35,390	-$47,948	-$41,393	-$75,552	-$88,041	-$94,911	-$124,713	-$177,528	-$117,958
Second Quartile	-$247	$1,097	$501	-$6,223	-$15,189	-$10,696	-$17,314	-$23,415	-$13,316
Third Quartile	$12,658	$17,258	$16,742	$12,067	$6,689	$12,505	$7,298	$5,737	$11,359
Highest Quartile	$56,976	$74,980	$70,934	$92,016	$67,823	$89,330	$112,732	$133,054	$96,845

For each year homes included were those that were in operation all year, did not change ownership, and whose profits or losses were within 3 standard deviations of the mean.

Source: DHCFP

From 1990 through 1999 Massachusetts nursing facilities demonstrated a pattern of increasing profits by the most profitable facilities and increasing losses by the least profitable facilities. In 2000 the trend began to reverse, with both profits and losses shrinking to below 1998 levels.

Figure 6:

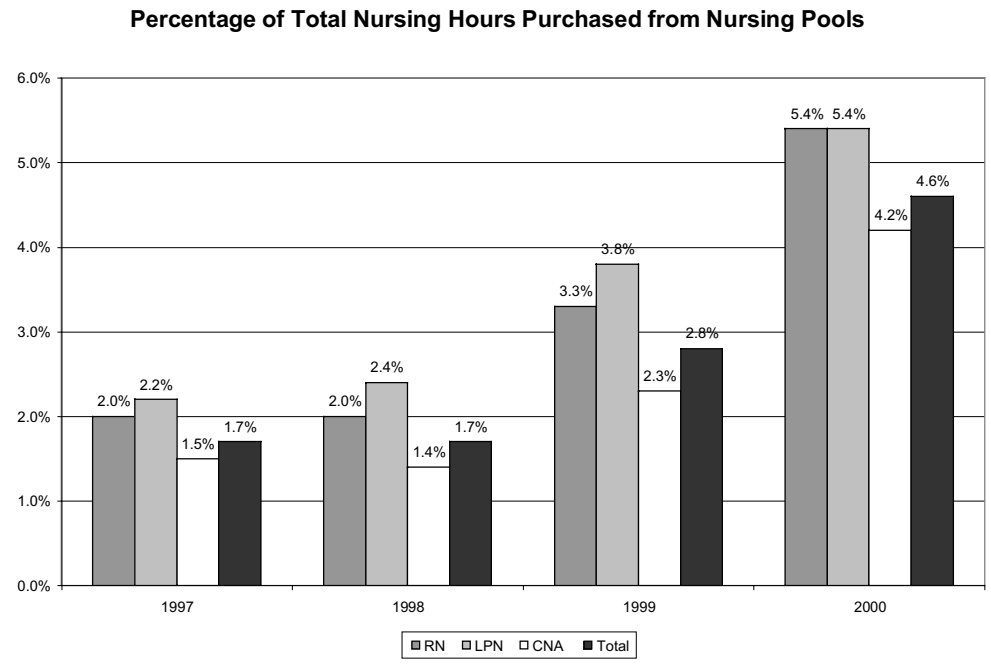


	1992	1993	1994	1995	1996	1997	1998	1999	2000
Bankrupt Owners	0.89	0.73	0.88	0.97	0.99	1.16	1.17	1.47	1.25
Solvent Owners	0.75	0.78	0.77	0.83	0.84	0.85	0.86	0.89	0.84
Bankrupt	n = 65	n = 68	n = 69	n = 73	n = 76	n = 77	n = 77	n = 71	n = 65
Solvent	n = 434	n = 447	n = 449	n = 449	n = 449	n = 432	n = 419	n = 412	n = 378

Source: DHCFP

Facilities that were owned by parent corporations in bankruptcy as of June 20, 2001 took on increasing levels of debt from 1993 through 1999. The decline in 2000 may be the result of restructuring of debt while in bankruptcy. These facilities had much higher levels of debt than facilities with solvent owners.

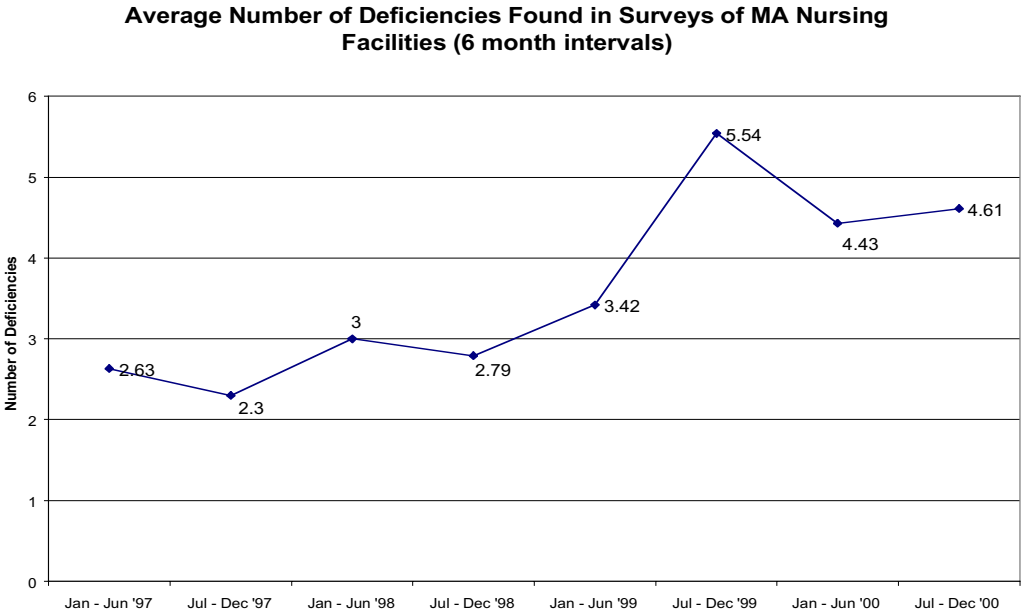
Figure 7:



Source: Massachusetts Extended Care Federation, based on the Federation's annual member survey of "Employment Trends in Nursing Facilities."

Nursing hours purchased from nursing pools increased from 1.7% of total nursing hours in 1997 and 1998 to 4.6% in 2000, with somewhat higher percentages of RNs and LPNs than CNAs.

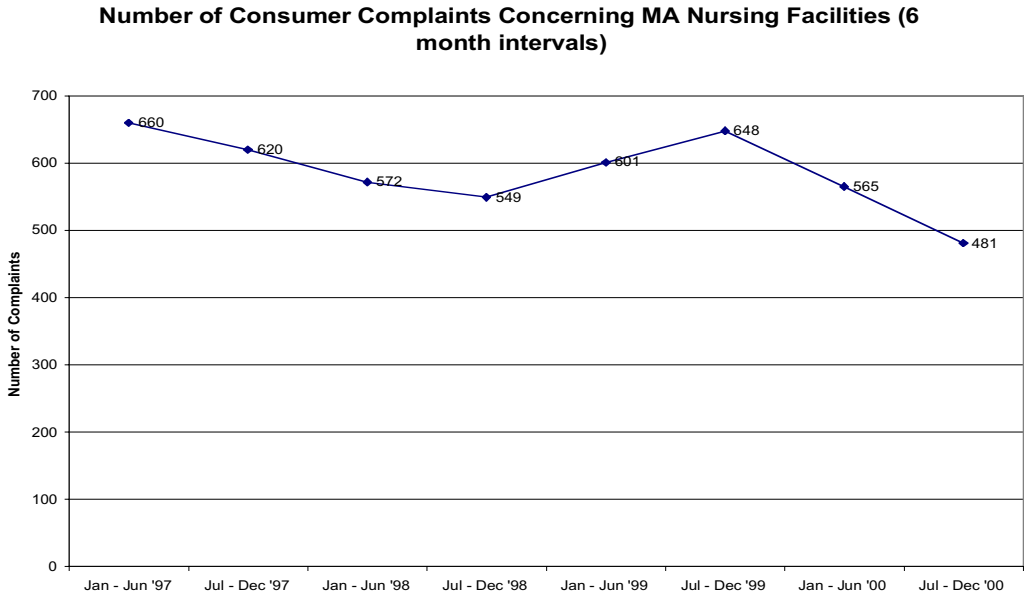
Figure 8:



Source: MA Dept. of Public Health

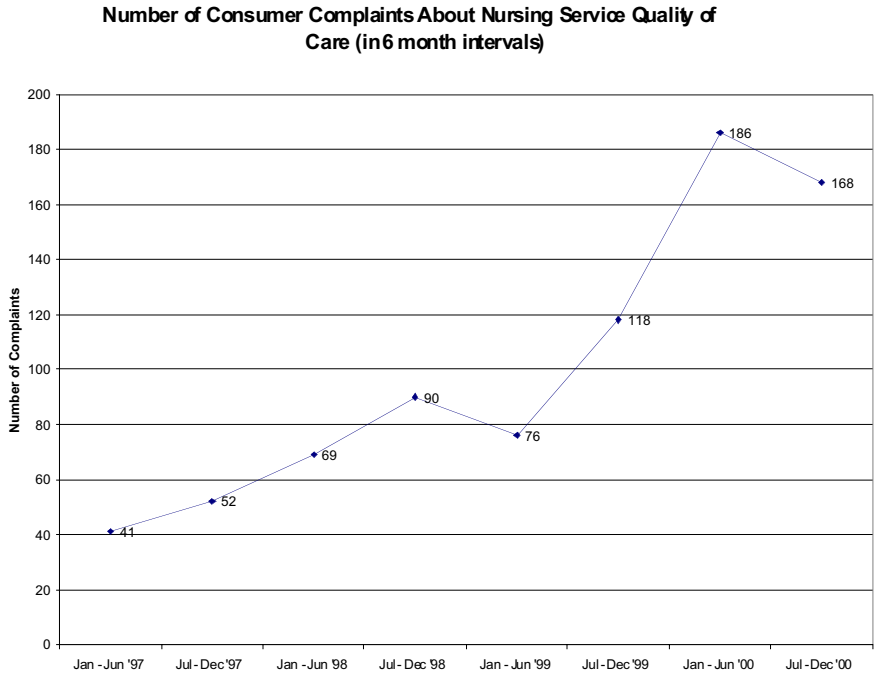
The average number of quality deficiencies found by the Department of Public Health in surveys of Massachusetts nursing facilities has increased over the last several years, peaking in late 1999. Deficiencies declined somewhat in 2000.

Figure 9:



Source: MA Dept. of Public Health
Consumer complaints declined during 2000 after an increase during 1999.

Figure 10:



Source: MA Dept. of Public Health
The number of complaints regarding the quality of nursing services increased dramatically in the last two years.

See separate file for these charts

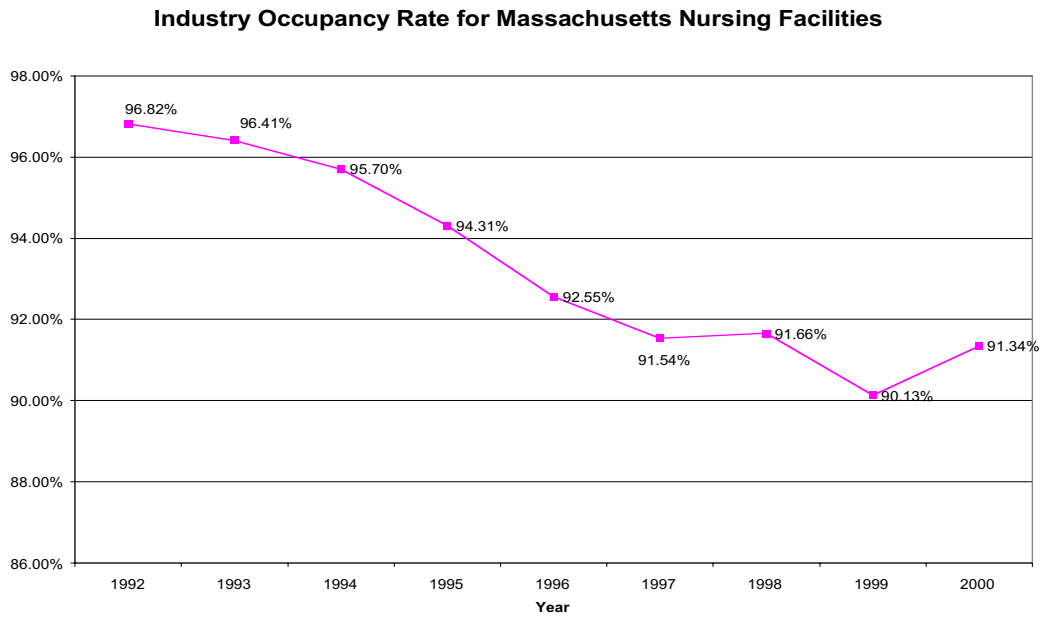
Figure 11:
[Map of empty Nursing Facility Beds]

Figure 12:
[Map of empty Nursing Facility Beds per 1000 population 75+]

Figure 13:
[Map of Daily Census per Population 75+]

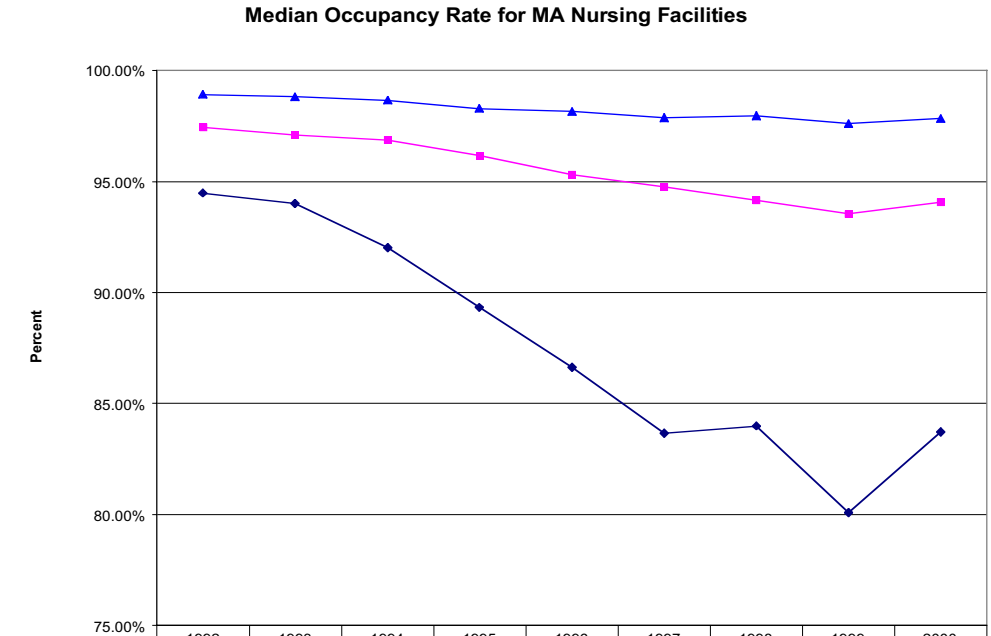
Figure 14:
[Map of DPH Subarea Boundaries]

Figure 15:



Source: DHCFP
The statewide occupancy rate in Massachusetts nursing facilities declined from 1992 through 1999, but began to rise in 2000 with the closure of a number of facilities.

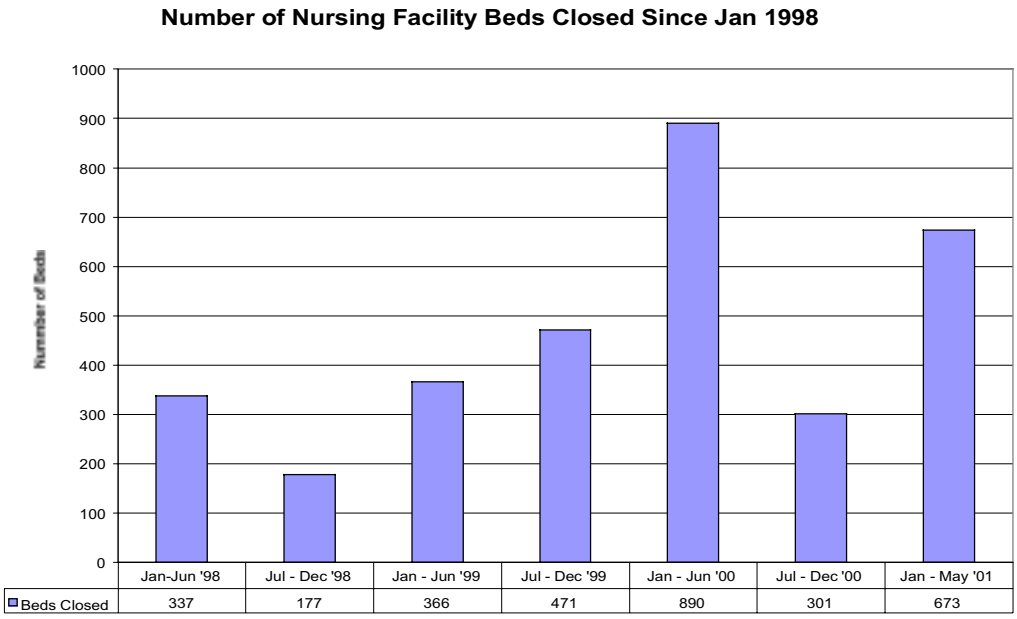
Figure 16:



	1992	1993	1994	1995	1996	1997	1998	1999	2000
Highest Quartile	98.93%	98.81%	98.67%	98.28%	98.15%	97.87%	97.97%	97.60%	97.83%
Median	97.44%	97.10%	96.87%	96.16%	95.31%	94.75%	94.16%	93.54%	94.08%
Lowest Quartile	94.48%	94.01%	92.02%	89.32%	86.63%	83.65%	83.98%	80.09%	83.71%
	n = 474	n = 499	n=492	n=495	n=491	n=479	n=474	n = 470	n = 417

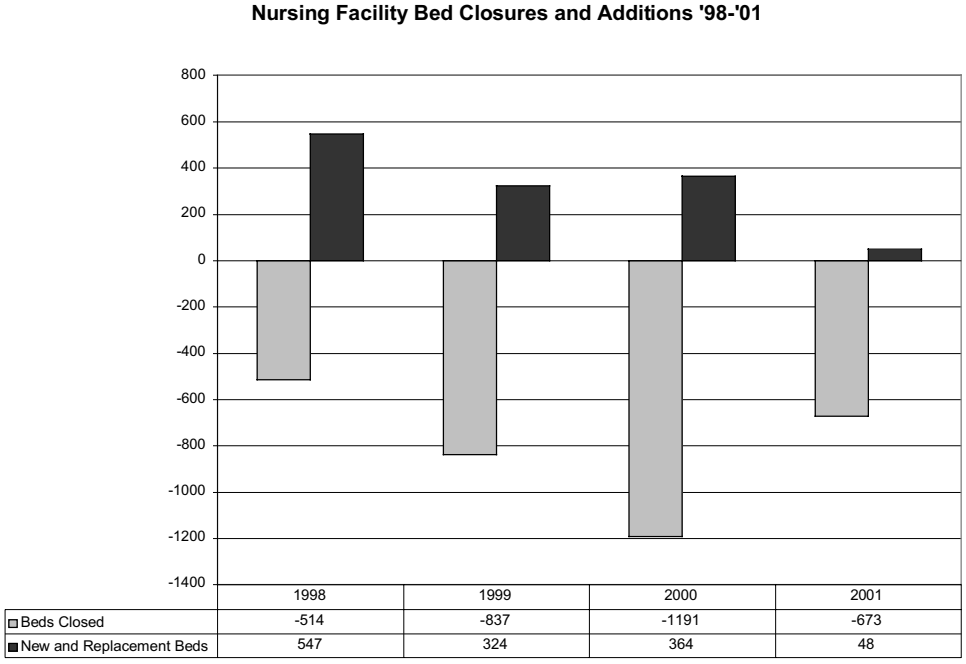
Source: DHCFP
The decrease in occupancy rates during the 1990's was not spread evenly across the industry. The median occupancy rate for the top quartile declined by only 1 percentage point; and the industry median declined by 3 percentage points; but the median occupancy rate for the bottom quartile plunged 14 percentage points from 1992 to 1999, and then regained 4 percentage points in 2000.

Figure 17:



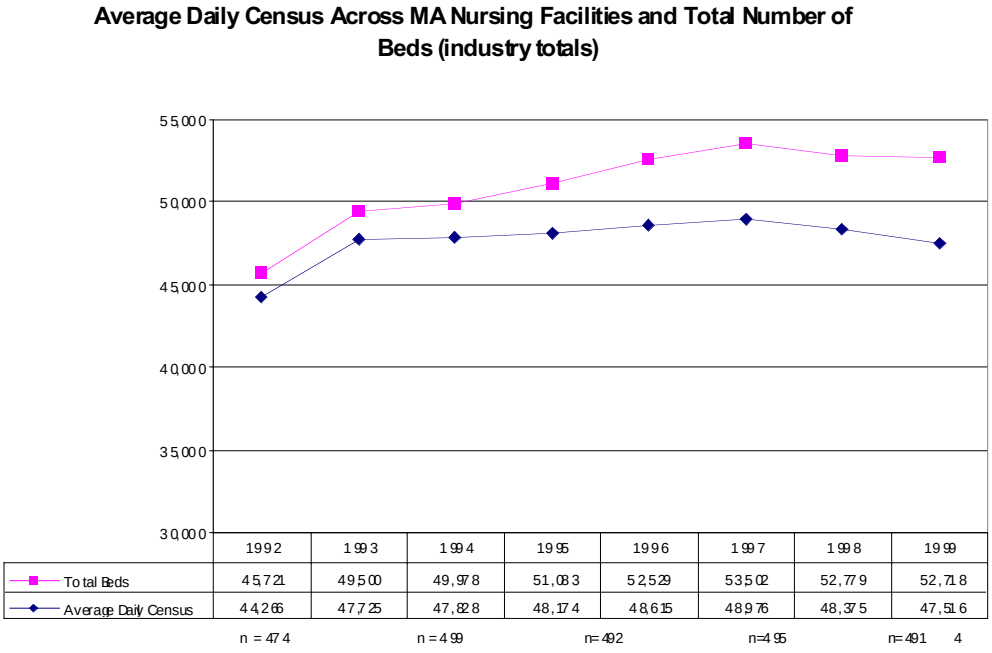
Source: DPH
A increasing number of nursing facility beds have closed in recent years, peaking in early 2000.

Figure 18:



Source: DPH
A small number of new beds have come on line, even as beds are closed elsewhere.

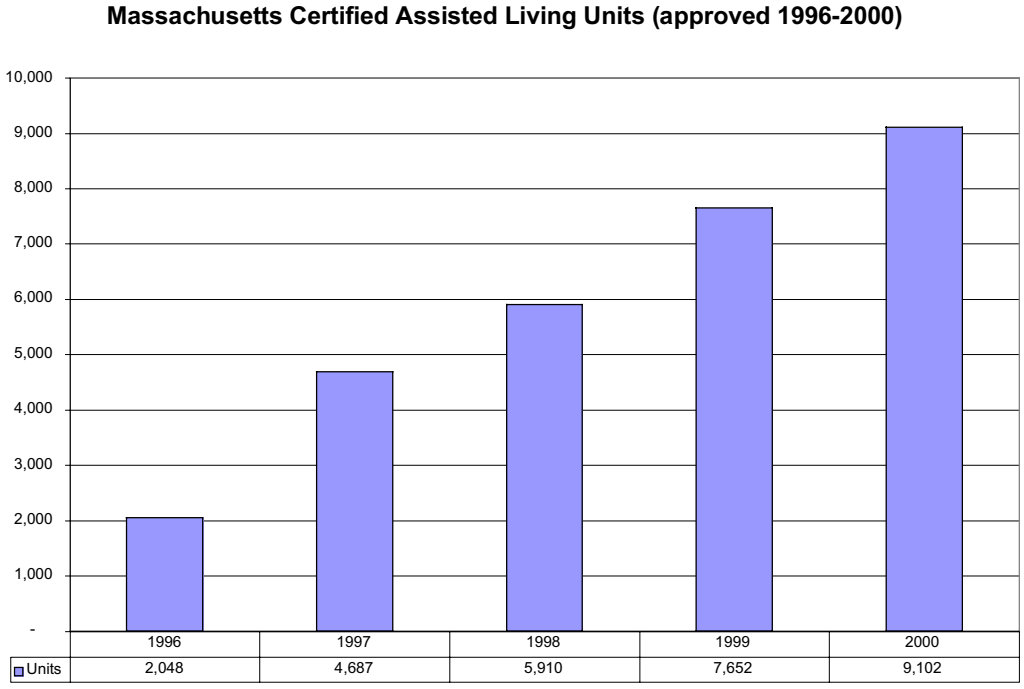
Figure 19:



Source: DHCFP

The number of nursing facility beds in Massachusetts increased from 1992 through 1997, with slightly lower levels in 1998 and 1999. The average daily census increased somewhat, but did not keep up with the increased supply of beds, and then declined slightly faster than supply in 1998 and 1999.

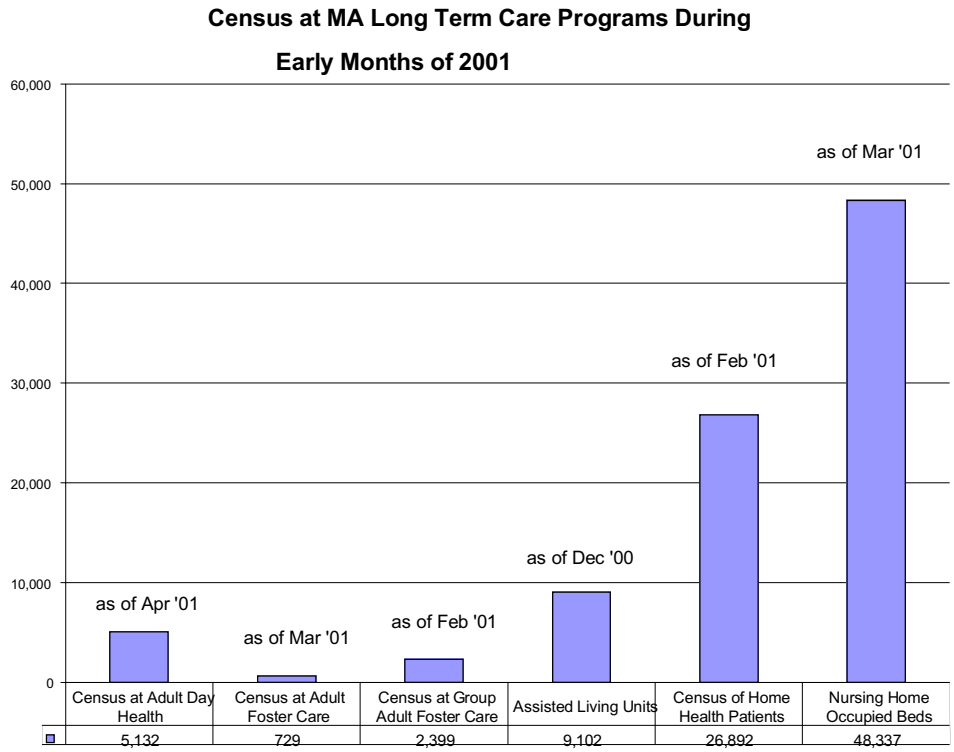
Figure 20:



Source: EOEA

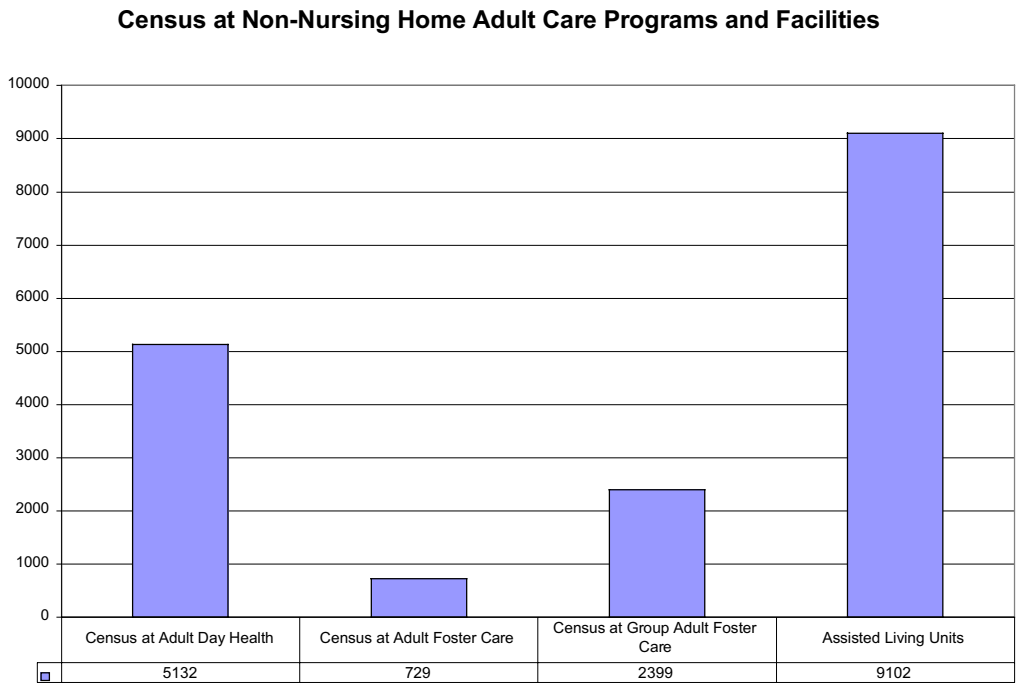
The first assisted living facilities in Massachusetts were approved to open in 1996, and the industry has grown rapidly since then. Units may be single or double occupancy. All units may not be occupied at any given time.

Figure 21:



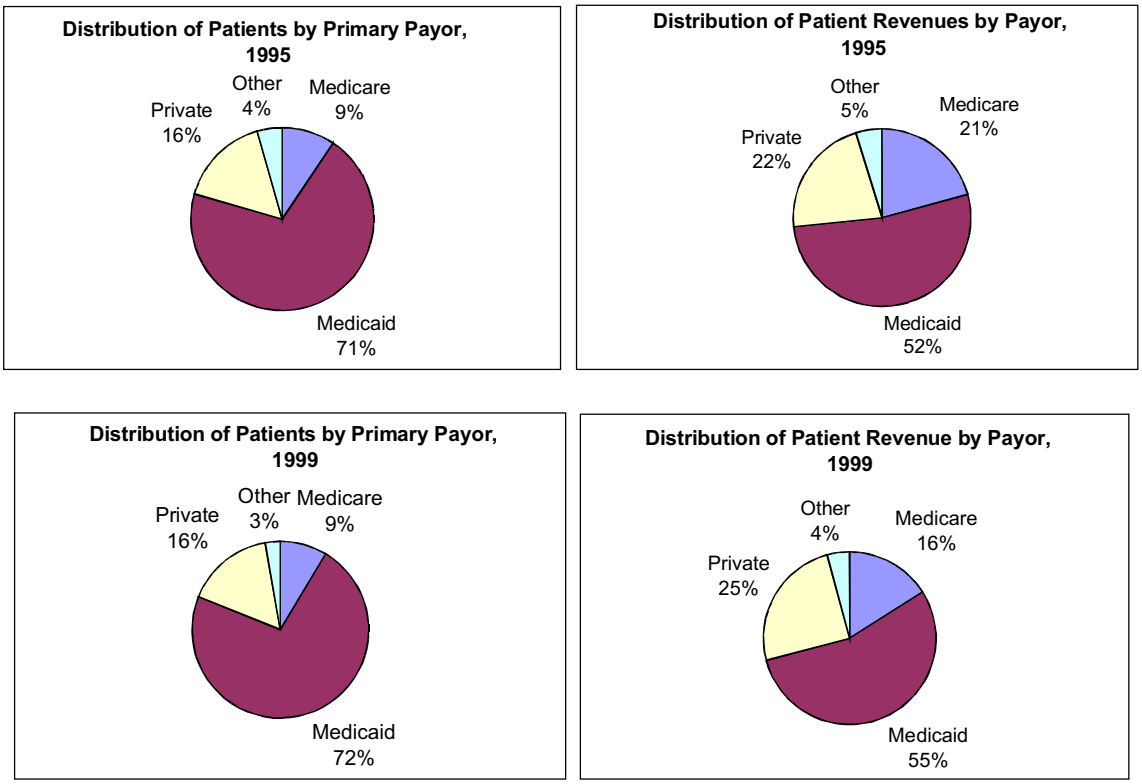
Sources: DMA, EOEA, DHCFP cost reports
More elders are cared for in nursing facilities than through community-based programs or facilities.

Figure 22:



Sources: DMA and EOEA

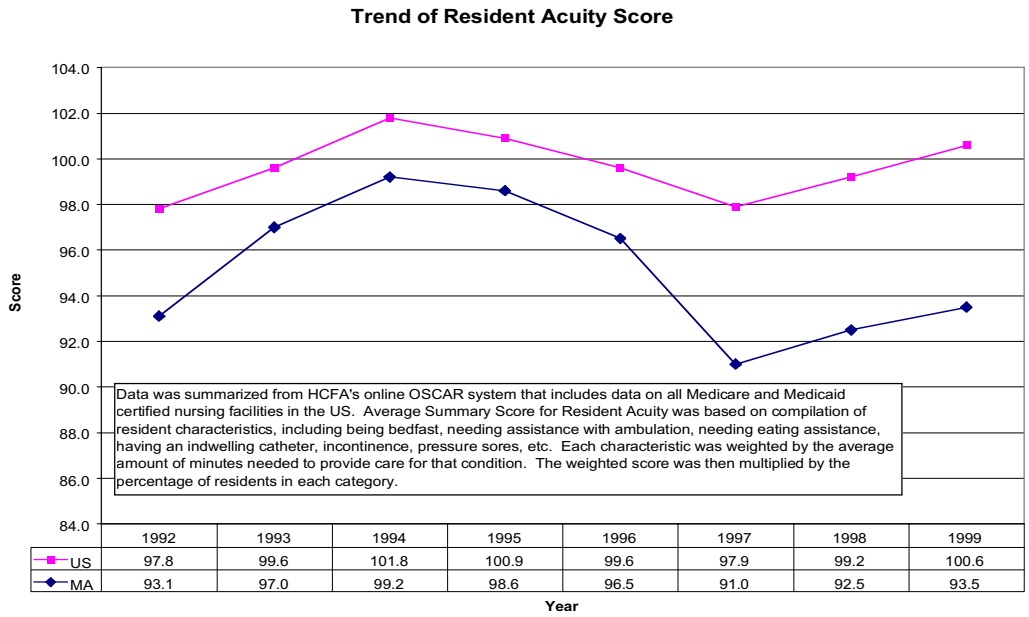
Figure 23: Nursing Facility Payer Mix



Source: DHCFP

From 1995 to 1999 the share of patients paid for by each of the major payers did not change, however Medicare's share of total patient revenue dropped from 21% to only 16% as a result of the BBA.

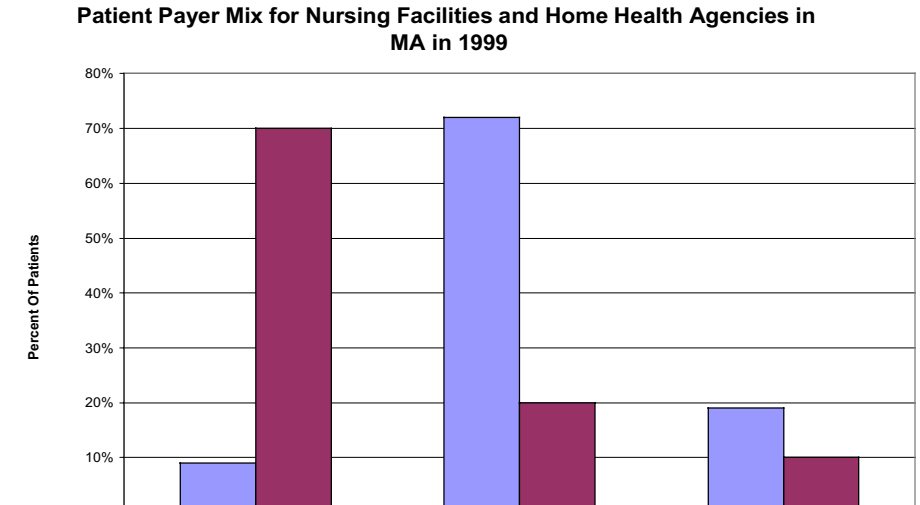
Figure 24:



Source: Nursing Facilities, Staffing, Residents and Facility Deficiencies 92-99

The acuity levels of patients in Massachusetts and U.S. nursing facilities increased through 1994, declined again through 1997, and then started to increase again slightly in 1998 and 1999.

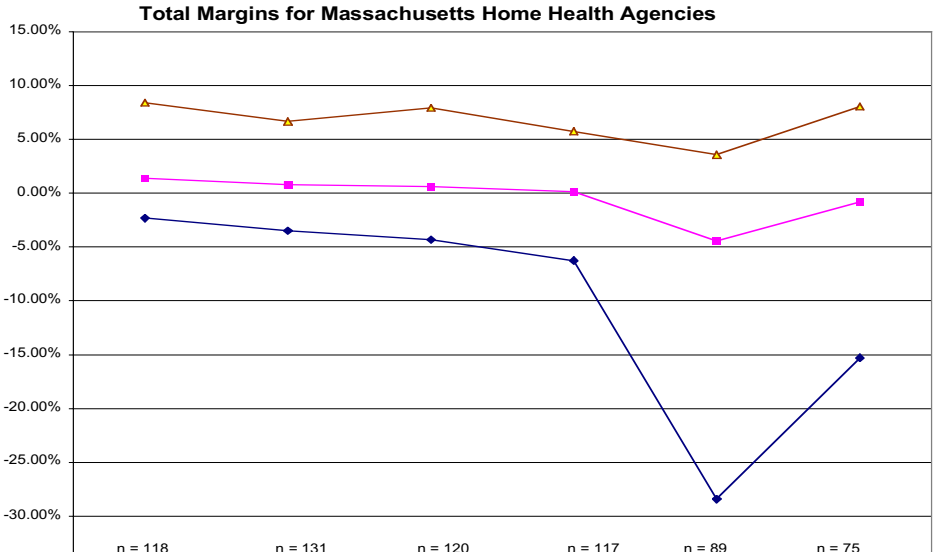
Figure 25:



	Medicare	Medicaid	Other
Nursing Facility	9%	72%	19%
Home Health	70%	20%	10%

Source: Nursing facility data from DHCFP. Home health agency data from MA Home Health and Home Care Assn.
While Medicare is the primary payer for 70% of home health patients, it is the primary payer for only 9% of nursing facility patients. Medicaid on the other hand is the primary payer for the majority of nursing facility patients.

Figure 26:

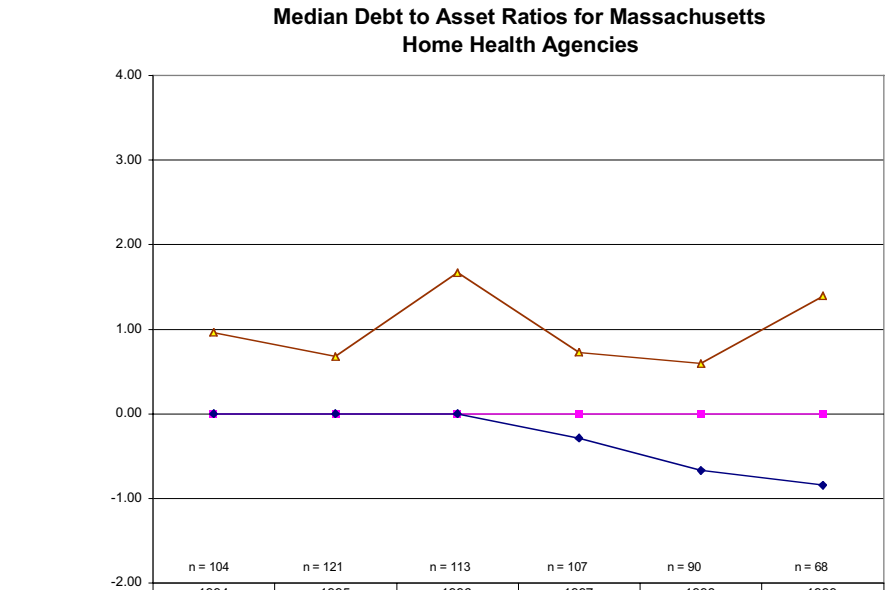


	1994	1995	1996	1997	1998	1999
Median 4th Quart	8.38%	6.64%	7.92%	5.72%	3.57%	8.02%
Median	1.37%	0.75%	0.58%	0.11%	-4.46%	-0.85%
Median 1st Quart	-2.33%	-3.50%	-4.33%	-6.27%	-28.41%	-15.30%

Total Margin is the bottom line net income divided by total revenues. Revenues and Expenses include both operating and non-operating.

Source: DHCFP.
Note: Data includes only freestanding home health agencies that accept Medicaid.
Home health agency margins held steady from 1994 through 1997. In 1998, with the BBA reductions in Medicare payments, many agencies closed, and those that remained were much less profitable. In 1999, more agencies closed and median margins rebounded somewhat.

Figure 27:

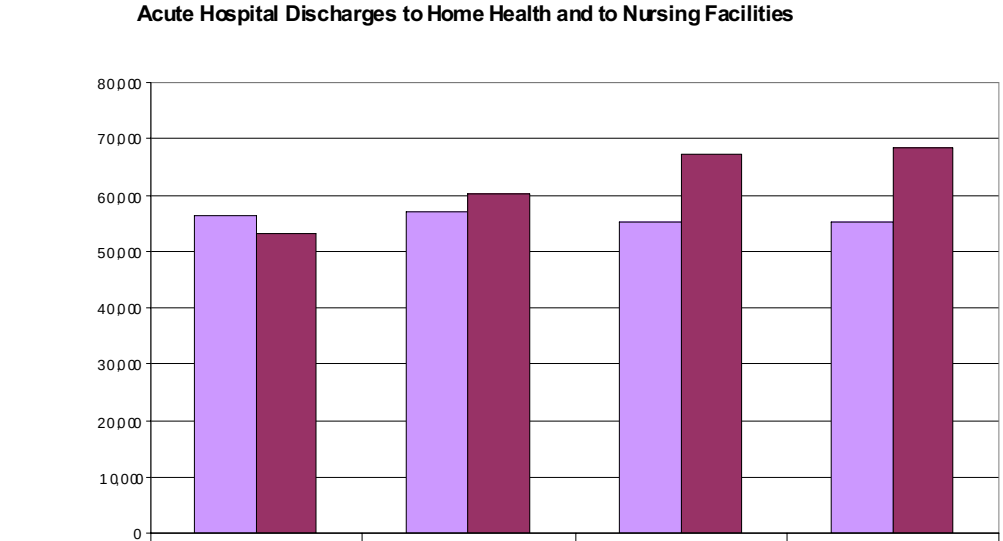


	1994	1995	1996	1997	1998	1999
Median 4th Quart	0.96	0.68	1.67	0.73	0.59	1.39
Median	0.00	0.00	0.00	0.00	0.00	0.00
Median 1st Quart	0.00	0.00	0.00	-0.29	-0.67	-0.84

Long Term Debt to Net Assets is an indicator of the degree of leveraging. It is the result of long term liabilities divided by unrestricted net assets.

Source: DHCFP.
Note: Data includes only freestanding home health agencies that accept Medicaid.
Most home health agencies have very little assets, and had no debt. At the beginning of the Medicare interim payment system under the BBA, Medicare overpaid some agencies. Those agencies were permitted to pay back that overpayment over several years, resulting in increased debt.

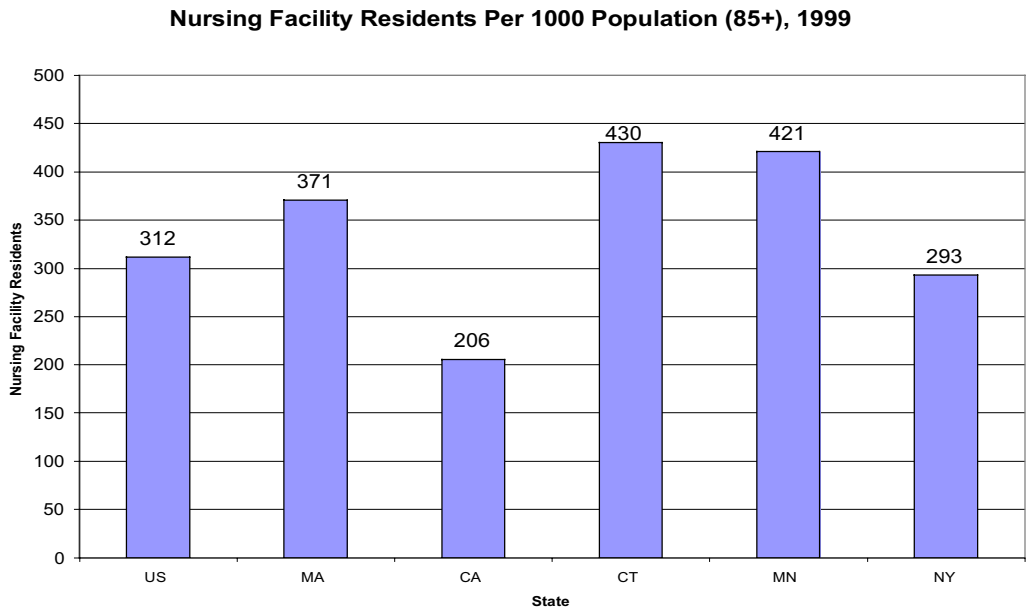
Figure 28:



	1996	1997	1998	1999
to Home Health	56,229	56,872	55,163	55,394
to Nursing Facility	53,153	60,082	67,244	68,159

Source: DHCFP Hospital Discharge Dataset
Discharges from Massachusetts acute care hospitals to nursing facilities increased significantly from 1996 through 1999. During the same period, discharges to home with home health services declined somewhat.

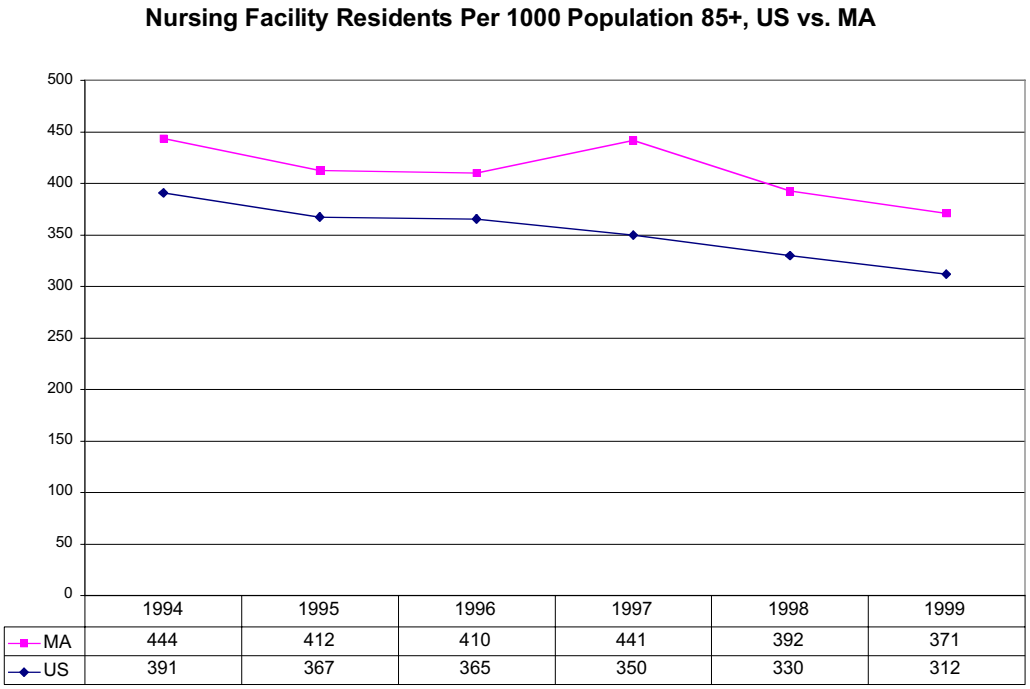
Figure 29:



Source: Nursing facility data from *Nursing Facilities, Staffing, Residents and Facility Deficiencies, 1993-1999*
Population estimates from U.S. Census Bureau

Massachusetts residents use nursing facilities more heavily than the national average, but not as much as states with the highest utilization rates.

Figure 30:



	1994	1995	1996	1997	1998	1999
MA	444	412	410	441	392	371
US	391	367	365	350	330	312

Source: Nursing facility data from *Nursing Facilities, Staffing, Residents and Facility Deficiencies, 1993-1999*
Population estimates from U.S. Census Bureau

Nursing facility utilization declined in Massachusetts and nationally from 1994 through 1999. Massachusetts utilization was higher than the national average throughout this period.